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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/055,481	01/23/2002	Carl Tung	VREX-0010USAAON00	7475

7590

06/17/2003

VRex, Inc.  
85 Executive Blvd.  
Elmsford, NY 10523

EXAMINER

CHUNG, DAVID Y

ART UNIT

PAPER NUMBER

2871

DATE MAILED: 06/17/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/055,481

Applicant(s)

TUNG, CARL

Examiner

David Y. Chung

Art Unit

2871

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-11 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-8, 10 and 11 is/are rejected.
- 7) ☒ Claim(s) 9 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_ 6) ☐ Other: \_\_\_\_

## **DETAILED ACTION**

### ***Claim Rejections - 35 USC § 112***

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

1. Claims 2-4 rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 2 recites the limitation "wherein said second polarizing material has a polarizing characteristic substantially in quadrature from mat of said first polarizing material". Because the meaning of this limitation is unclear, the scope of the claims cannot be ascertained and the claims are indefinite. For this examination, the above limitation will be interpreted as meaning that the first and second polarizers are orthogonal to each other.

### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

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2. Claims 1-3, 10 and 11 rejected under 35 U.S.C. 102(b) as being anticipated by Lazzaro et al. (U.S. 5,821,989).

As to claims 1 and 10, Lazzaro et al. discloses a stereoscopic viewing system having a pair of liquid crystal shutter panels through which the time-multiplexed perspective images can be sequentially viewed in a substantially flicker-free manner by the left and right eyes of a human viewer. See abstract. Note the cross-sectional view of the liquid crystal shutters 9A and 9B shown in figure 1B. The shutters comprise a first polarizing material 19, and a twisted nematic liquid crystal cell as the active rotator. A second polarizing material 20 is disposed in the optical path between the liquid crystal shutter glasses and the display device 2.

As to claims 2 and 11, Lazzaro et al. discloses that polarizing materials 19 and 20 have orthogonal polarization states P1 and P2. See column 10, lines 55-60.

As to claim 3, Lazzaro et al. discloses that the display device 2 in figure 1A is a CRT-based display device. See column 9, lines 1-10. A CRT-based display device is a direct view display.

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

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(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 5-8 rejected under 35 U.S.C. 103(a) as being unpatentable over Lazzaro et al. (U.S. 5,821,989).

As to claims 5 and 6, Lazzaro et al. discloses the structure of the stereoscopic liquid crystal shutter glasses but does not disclose removing the polarizer nearer the display and installing another polarizer in the optical path between the liquid crystal shutter glasses and the display device. However, it was well known and obvious to do this in order to replace polarizers that have been scratched or damaged during manufacturing. Therefore, it would have been obvious to one of ordinary skill in the art at the time of invention to remove the polarizer nearer the display and install another polarizer in the optical path between the shutter and the display in order to replace scratched or damaged polarizers.

As to claim 7, Lazzaro et al. discloses that the display device 2 in figure 1A is a CRT-based display device. See column 9, lines 1-10.

As to claim 8, Lazzaro et al. does not disclose a front view projection system. However, front view projection systems were well known and obvious for having good viewing properties. Therefore, it would have been obvious to one of ordinary skill in the

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art at the time of invention to use a front view projection system as the display device because of its good viewing properties.

### ***Claim Objections***

4. Claim 9 objected to under 37 CFR 1.75(c), as being of improper dependent form for failing to further limit the subject matter of a previous claim. Applicant is required to cancel the claim(s), or amend the claim(s) to place the claim(s) in proper dependent form, or rewrite the claim(s) in independent form. Claim 9, which depends on claim 8, recites the limitation "wherein said display is a rear projection display screen". However, claim 8 recites the limitation "wherein said display device is a front view projection system".

### ***Allowable Subject Matter***

5. Claim 4 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, second paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.


6. Claim 9 objected to as being dependent upon a rejected base claim, but would be allowable if rewritten to overcome the objection(s) under 37 CFR 1.75(c), set forth in this Office action and to include all of the limitations of the base claim and any intervening claim.

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7. The following is a statement of reasons for the indication of allowable subject matter: none of the prior art taught or suggested a stereoscopic liquid crystal display system comprising: liquid crystal shutter glasses each having two liquid crystal shutter assemblies each having a first polarizing material nearer the eye and an active rotator; a display device; and a second polarizer material mounted to the display screen.

***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to David Chung whose telephone number is (703) 306-0155. The examiner can normally be reached on Monday-Friday from 8:30 am to 5:00 pm.

  
ROBERT H. KIM  
SUPERVISOR OF EXAMINERS  
TECHNOLOGY CENTER 2300

David Chung  
GAU 2871  
06/13/03